

# **MODELLING CHANGE USING A NOVEL BUSINESS NARRATIVE MODELLING LANGUAGE**

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## **Abstract**

**Purpose** – This paper is developed in the realm of strategic change communication. The purpose of this paper is to present our Business Narrative Modelling Language (BNML) as a tool for facilitating change.

**Design/methodology/approach** – The paper draws on the experience of the authors and on a literature review of other modelling techniques which are seen to be mainstream alternatives to our BNML. Several case studies (involving action research as well as other research methods) have been performed using BNML and inspire the text.

**Findings** – We have found that as concerns the management of strategic change most important of all is to be able to change the mindset of entrepreneurs, senior managers and other key leaders in organizations. In one case in particular, this involved moving from desperation to the possession of a positive vision for the future - BNML helped provide a new vision in a down-to-earth way, comprehensible across the organization, at all levels.

**Research implications** – The potentially negative attitude towards the narrative and storytelling and pictorial representations needs to be overcome and it is necessary to devise new methods to inspire change at all levels in organizations.

**Practical implications** – It is our conviction that the importance of communication, and how it aids change initiatives, should be duly appreciated. We hope to show in our future research efforts that BNML can help to achieve change objectives.

**Originality and value** – This paper contributes to change management theory building on Eriksen (2008) – *change is of a personal nature* – and Quinn *et al.* (2000) – *change must occur in the mind*. Neurologist Damásio (2000) has shown that *the feeling of what happens* is like a “film in our brain” which we try to reproduce and reinforce with our BNML which proposes an innovative modelling language and business narrative and uses them as a communication tool in a dialogue for change.

**Keywords** – Strategic change communication, modelling language, narrative, storytelling, the language of film, value creation.

**Paper type** – Conceptual paper.

## **Introduction to BNML**

The central message of our article is that we have developed a novel Business Narrative Modelling Language (BNML) to aid, by greatly simplifying and expediting qualitative research, the portrayal of organizational change. This is achieved as our tool can make evident the As-Is situation and compare it to the To-Be, or desired situation following an organizational development initiative. Consciousness and the feeling of what happens, according to António Damásio, an “extraordinary neurologist as concerns the functioning of the brain... and the attempt to understand consciousness” (David Hubel, Nobel Prize, Harvard University, commenting on Damásio’s work on the back cover of *The feeling of what happens* (Damásio, 2000)) have its origin in a “narrative without words” (Damásio, 2000, p.199) and we naturally construct a “film in our brain” using “explicit mental patterns” (Damásio, 2000, p.28) and images “which occupy virtually the whole extension of our mind” (Damásio, 2000, p.29). We wish to take advantage of this in our BNML by making use of intuitive video game language and business narrative patterns, based upon easily comprehensible dynamic pictorial representations, involving character storylines, to describe asset usage and creation through social interaction. We in so doing hope to inspire managers involved in change initiatives worldwide.

Our modelling language passes intuitively through the eight phases of problem-solving and strategy design and implementation, as advocated by Childress and Marietta (2010): 1. Identify the problem. 2. Analyze the problem and diagnose its causes. 3. Develop a theory of action. 4. Design the strategy. 5. Plan for implementation. 6. Implement the strategy. 7. Assess progress. 8. Adapt and modify for continuous improvement. However, by visually and dynamically portraying on paper two different “films” of relationships, first of the As-Is situation and then of the To-Be situation, we are dealing directly with how organizational actors choose to represent and map out their conscious awareness of occurrences. We are in fact contributing to change occurring (first and foremost) in the mind.

## **Our research objective**

“You must be the change you want to see in the world.” (Mahatma Ghandi)

At one company we researched in particular our efforts have been to change the mindset of the entrepreneur - from one of desperation where survival is the sole preoccupation to one where strategic change and vision have a prominent standing. Eriksen (2008) speaks of how challenging this can be and we also agree with Eriksen (2008) that organizational change is of a personal nature. To effectively facilitate organizational change in one's entrepreneurial endeavour one does in effect first have to see the change oneself, to accept it in one's interior, and to become the change which one wants to see (Quinn *et al.*, 2000 as quoted by Eriksen, 2008, p.622).

We intend also with our BNML to focus on narratives and storytelling despite that, to date, “narratives and storytelling have... been treated as unscientific and been given little attention” (Flory and Iglesias, 2010, p.113). We believe that “revolutionary change depends to a great extent on how the world is framed by our language” (Eccles *et al.*, 1992 as quoted by Flory and Iglesias, 2010, p.114). “Narratives and stories are extremely powerful... drivers of organizational change” (Flory and Iglesias, 2010, p.114). Nilsson (2010, p.137) adds further that rhetoric (being more than mere persuasion) is “a fruitful perspective for understanding the phenomenon of change”, organizational change being a sense-making process (Weick, 2001).

Several strategists have pointed out that strategic plans are seldom carried out as envisioned (Piercy, 1992; Mintzberg, 1994; Cravens and Piercy, 2009) but rather are emergent and we wish to contribute to furthering the phenomenon of change management.

## **Methodology followed for the article**

So, as can be seen in figures 1 and 2, and as is developed further in the annex (pattern glossary), we have developed a way to accelerate change by using a novel Business Narrative Modelling Language (BNML). With this novel tool we show how value (assets such as Goodwill and Customer Relationships) is created in organizations.

In order to arrive at this modelling language the authors have drawn on professional work experience as well as on extensive research into specialized areas such as

enterprise integration, supporting architectures and life-cycle, executable models and enterprise modelling.

Furthermore, a review of the literature has been performed and a number of models analyzed in comparison to BNML. The following section shows some of the models contemplated, those seen as being at the forefront of contemporary management theory and practice.

The ideas developed have already been tested in a number of cases including at a food distributor, a travel agency, a global management software producer, a thematic park for children and are being tested as well at a software house based in Portugal and experiencing rapid growth. Case studies (Yin, 2003) have been carried out for these companies which were developed using action research (Bryman, 1989) as well as using more conventional qualitative methodologies in other cases. Unstructured interviews thus played an important role as a research tool (Bryman, 1989, p.135), where the aim was “to elicit respondents’ ways of thinking about the issues” while “minimizing the degree to which they are constrained” (Bryman, 1989, p.147). An aide-mémoire mostly took the place of a pre-existing schedule for the interviews.

Observation in the field and memos written down were also compared to the literature throughout the research study as new theory development was an objective.

### **Some examples of models which are used to represent organizational realities**

BNML is based on a visual representation which greatly simplifies the portrayal of reality, present and future. Our BNML is also based on the business narrative which is seen to be a motivating factor in organizations.

A model pertaining to a business essentially tells a good story – a story explaining how the enterprise functions (As-Is situation) or should function (To-Be situation) (Magretta, 2002). We are especially interested in stories as “when you work with stories, you can ask people to tell stories about their experiences related to some subject of importance to you (and usually to them), and you can also ask them to answer some questions about those stories. When you do these things, you can find out things and make things happen that wouldn't be possible otherwise.” (Kurtz, 2008, cover page).

Some examples of models which are used to represent organizational realities include SWOT analysis, the Strategy Statement, the Balanced Scorecard, Value Network analysis, and the BCG Matrix. We believe that we build upon these existing tools, not

seeking to replace these and other models but rather providing an alternative which may add focus and speed up change initiatives:

1) SWOT analysis – Of internal company strengths and weaknesses, and of opportunities and threats present in the environment – a very simple, structured tool used to evaluate a company's strategic position (Moutinho, 1995), and able to incorporate qualitative information (Piercy, 1992). Indeed SWOT analysis may be “the *only* technique you need to start changing the way things are... instead of producing beautiful plans which just never get implemented” (Piercy, 1992, p.257). Some SWOT shortcomings have been pointed out, however, perhaps due to this tool's success as it managed to become a widespread organizational tool used globally. Shortcomings pointed out by the renowned Strategy and Marketing guru Nigel Piercy are as follows: “SWOT analysis is frequently done extremely badly” and often produces “subjective”, “bland, non-operational, comfortable, biased output” which is “sloppy and unfocused” (Piercy, 1992, p.257).

2) Strategy Statement Collis and Rukstad (2008, p.82) advocate “you summarize your company's strategy in 35 words or less.” It is intuitively appealing, to devise a short narrative that is “simple and clear” and will aid the implementation of strategy, being comprehensible by all of the actors in the organization. This statement substitutes “the voluminous documentation that emerges from an annual budget or a strategic-planning process” (Collis and Rukstad, 2008, p.84). Possible shortcoming: in effect a great deal more than 35 words end up being used as the authors who invented the tool also advocate “detailed annotations that elucidate the strategy's nuances (to preempt any possible misreading) and spell out its implications” (Collis and Rukstad, 2008, p.90). This tool also lacks a graphical representation.

3) Balanced Scorecard (Kaplan and Norton, 1992, 1993, 2007). Having realized that “no single measure can provide a clear performance target or focus attention on the critical areas of the business” (Kaplan and Norton, 1992, p.71) a more complete and balanced presentation of measures was devised, both financial and operational - “operational measures that are the drivers of future financial performance” (Kaplan and Norton, 1992, p.71). A total of four perspectives are analyzed: financial perspective, customer perspective, internal business perspective, and an innovation and learning perspective, adding focus, simplicity and vision (Kaplan and Norton, 1993). Shortcomings have been suggested by the inventors themselves of this exceptional tool, such as: it might

not make sense for smaller enterprises without the internal capability to apply the measures, which could run into “hundreds and thousands of measurements” requiring “a big, expensive executive information system” (Kaplan and Norton, 1993, p.147). The scorecard can also become “a mere record-keeping exercise” (Kaplan and Norton, 1993, p.147).

4) Value network analysis (Allee, 2000a, 2000b, 2002a, 2002b, 2008). Verna Allee’s research on value networks as fluid structures (organizations involving complex dynamic exchanges) (Allee, 2000a), has earned her awards (such as for Allee, 2008) and best-selling publications (Allee, 1997, 2002a). Verna Allee is also Co-founder and CEO of Value Networks LLC. One of Allee’s main contributions has to do with how value is created (Allee, 2000a), namely via three currencies of value: 1) Goods, services and revenue (involving contracts, invoices and payment); 2) Knowledge (for example strategic information, technical know-how as well as collaborative design knowledge); and 3) Intangible benefits (including a sense of community and customer loyalty and other such value not normally appearing in financial measurements) (Allee, 2000a); where knowledge and intangible value exchange are seen to be of equal importance to revenue-generating exchanges, constituting the basis for organizational interaction and the foundation of successful business models (Allee, 2008). Intangible assets are, according to Allee, the oil in the mechanism that makes the system run smoothly, though they do not function as we are accustomed with other resources and they do not involve money exchanging hands (Allee, 2008). Intangibles are “those “little extras” people do that help keep things running smoothly and build relationships” (Allee, 2008, p.7<sup>1</sup>). Allee (2000b, pp.18-19) speaks of various types of intangible assets, such as: alliances, relationships with customers and suppliers, brand recognition, goodwill, individual capabilities, knowledge, skills, experience, problem-solving abilities, IT (as a means to leverage competitiveness), communication technologies, databases, documents, and patents, which we incorporate in our BNML. What our BNML adds to Allee’s framework is a timeline – events will unfold over time and progress can be tracked, in particular by resorting, also, to our Pattern Sequence. The narratives of the organizational characters also gain life with BNML as they are further embedded in the

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<sup>1</sup> Quote from page 7 of the online version of the article, available at <http://vernaallee.com/VA/Library.htm> on 16 June 2010.

storylines. These aspects of BNML might add to what is a very comprehensive and intuitive tool, brought to us by Verna Allee.

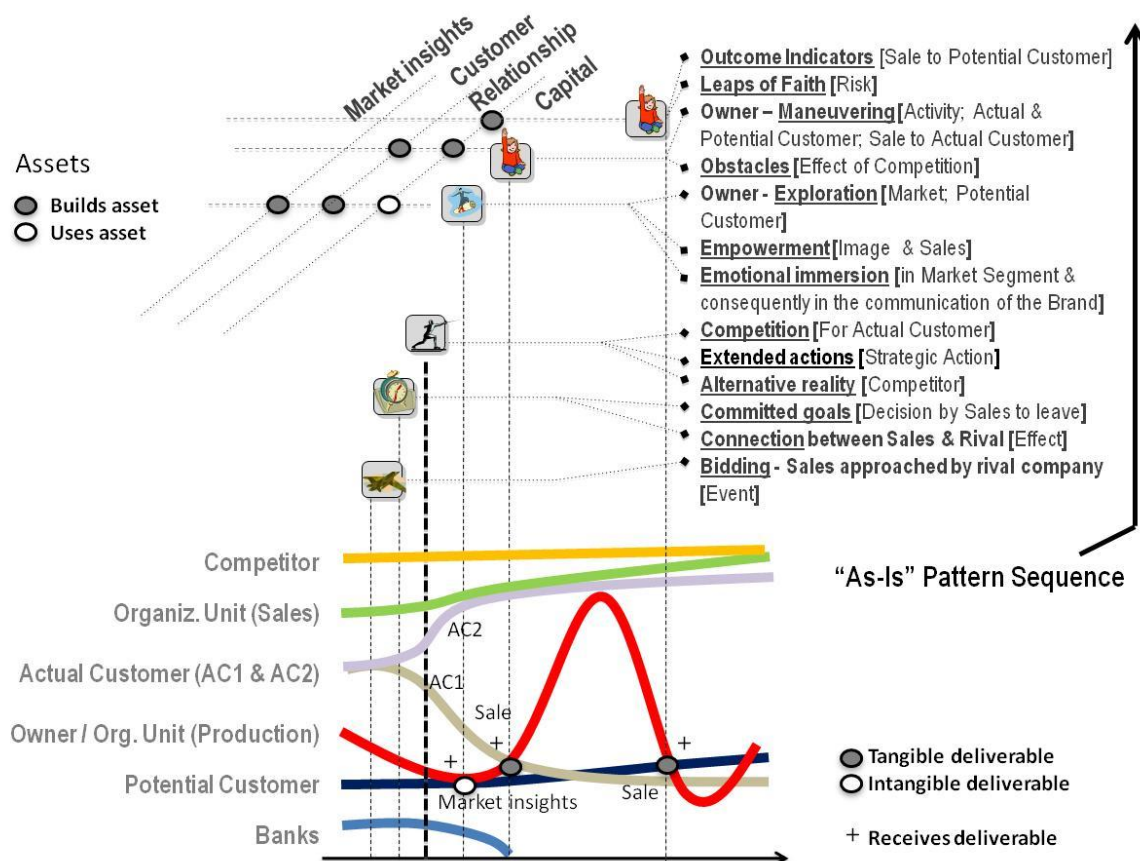
5) BCG Matrix (Henderson, 1970, 1973; Davis, 1987; Lambin, 2000). The BCG Matrix is a much-used graphical representation, especially by organizational strategy consultants, focusing on the product portfolio a company should have. Products have “different growth rates and different market shares” (Henderson, 1970, p.1). A balance is required between high-growth and low-growth products, the former requiring cash outlays to grow, the latter generating excess cash. If we have both types of product in our company, a balance should thus result. Possible shortcomings: smaller companies may have no idea of their relative product market shares, which is an important aspect of the model (Lambin, 2000). Furthermore, most smaller companies are unable to reach the point desired and proposed by this model: “The value of a product is completely dependent upon obtaining a leading share of its market” (Henderson, 1970, p.1). Thus, the value of using this model may diminish.

### **An overview of our Business Narrative Modelling Language (BNML)**

Our novel Business Narrative Modelling Language (BNML) combines patterns of narrative structure (Dunford and Jones, 2000) and plots (InPoint, 2010) and value network concepts (Allee, 2000a, 2002a, 2008) in the modelling of the value creation business narrative. This language has been used to support action-research (Brewerton and Millward, 2001) at a firm affected by the global crisis and facing fierce competition and thus in need of change and development. Two other larger companies in the software industry and a travel agency have also been involved in discussions around our BNML. Furthermore, a thematic park and the value it creates has also been the object of an analysis using BNML.

The following example was inspired by the authors’ experience and by research cases where BNML allowed the discussion of business strategy and enabled a very straightforward communication and clear understanding between the researchers and the entrepreneurs, who, in some cases, have no academic management background. Figure 1 illustrates the result of this work effort, concerning the description of an As-Is situation, before an organizational development intervention.





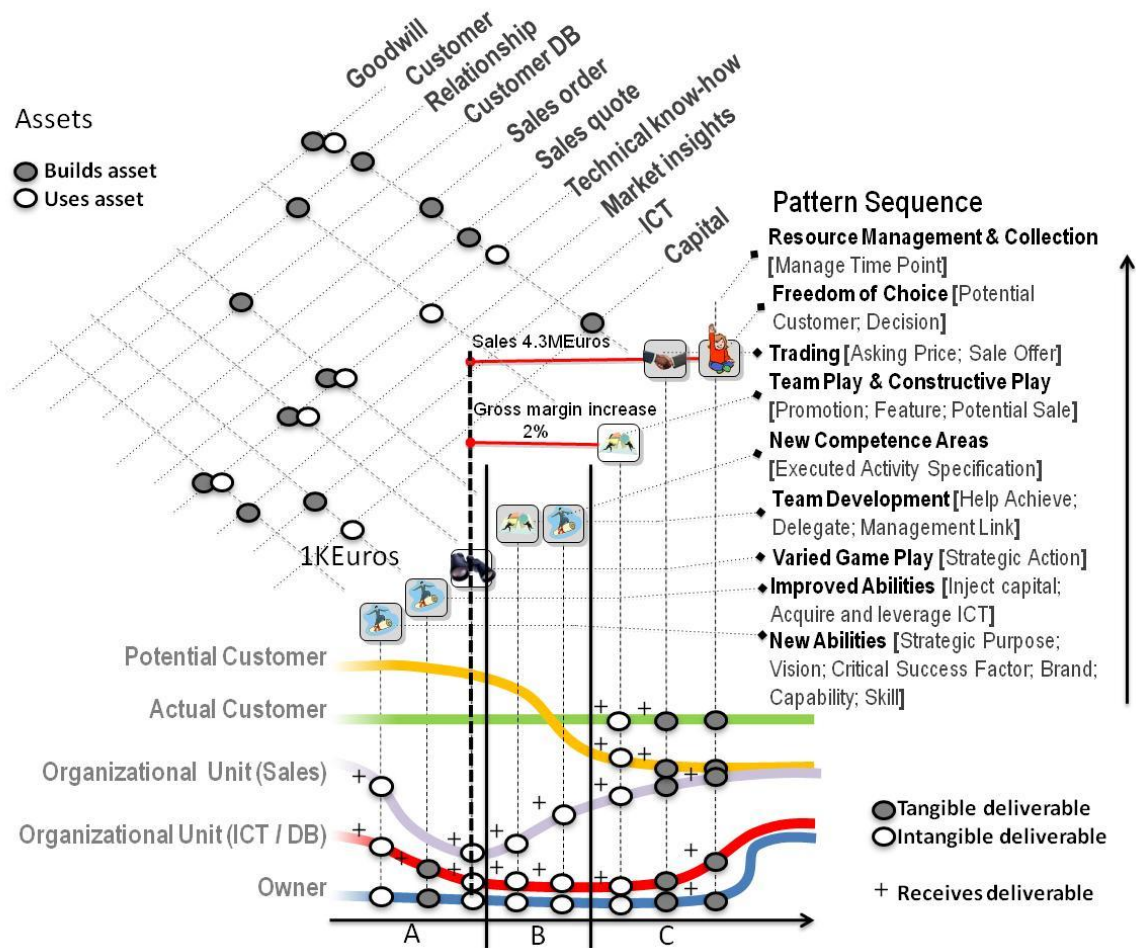
**Figure 1 – The As-Is situation at Action Company (before the change program)**

The somewhat dramatic story told herein (of “Action Company”) is actually a reality which comes to pass in many companies where Sales have a prominent standing. In the “As-Is” situation description (before the strategic change effort) survival fully occupies Action Company’s agenda. Dedicated to Production, the Owner (and entrepreneur) of Action Company suffers when his Sales Director (who has been with the company for a number of years and who has developed a significant level of loyalty with a large customer base) is approached by a rival company (Bidding) with a very attractive offer to leave and to start to work with them. The Sales Director and rival company Connect and agree Committed Goals for the future - the Sales Director is to be a share-holder with executive responsibilities in the rival company. An Alternative Reality is built (with the Sales Director now at the Competitor) and Extended Action is taken which leads to Competition in the marketplace for Actual Customers. Half of Action Company’s customers (the former Sales Director’s customer segment) might leave to the rival company, literally the morning after the Sales Director leaves. The Owner of

Action Company, previously in charge of production, is taken by surprise and shocked. Not having developed relationships with most of the customers before this situation occurred, the Owner of Action Company now seeks to remedy this situation by “taking to the road” and desperately trying to secure some business, as can be seen in figure 1 where the red line moves first toward Potential Customers (to gain market insights) and then towards what appear to be Actual Customers loyal to Action Company (AC1); subsequent movement by the Owner is then up towards Actual Customers (AC2) belonging to the former Sales Director’s market segment to try and “hang on” to current business assets which seem to be lost to the Competitor. The Owner of Action Company doesn’t stop there as he moves back down again towards Potential Customers and to the loyal Action Company (AC1) customers. Both companies experience Emotional Immersion at this critical stage in the company life-cycle. In the end 50% of Action Company sales volume is indeed lost and the Actual Customer line dividing into two (AC1 and AC2) does represent the new “sales avenues” of the near future – 50% staying with Action Company (AC1) and 50% going to the Competitor (AC2). This forces Action Company to seriously look elsewhere (Potential Customers) for additional sales. Empowerment ensues due to an increased focus on company Image and Sales. Exploration of the Market and of Potential Customers by Action Company (especially by the Owner and Production Director, who realizes the mistake he made by neglecting Sales and concentrating on Production) ensues. Obstacles are encountered as a result of the increased Competition. With some maneuvering, Sales by Action Company to Actual Customers occurs. Leaps of Faith are taken as the future is uncertain and the Owner of Action Company chooses to not close his business down but rather to continue seeking Sales. Outcome Indicators and hope for the future materialize when Sales to Potential Customers are closed. However, as can be seen at the bottom of figure 1, to make things worse banks withdraw support from Action Company, given the economic downturn and the global economic crisis (a 20% decrease in market size is felt at the same time as there is an increase of bad debts across the industry), increasing the gravity of the situation. The running of the company, as banks have refused financial support to Action Company, is now dependent on receiving timely payment from customers. However, due to the attempt to maintain the previous year’s sales level, some risks are taken which leads to bad debts for Action Company. The situation is

critical and a strategy is needed to ensure that the company is able to survive and meet these and other challenges ahead.

Figure 2 illustrates how, at another company (“Dominant Company”), BNML establishes a link between patterns (Bjork and Holopainen, 2005) of narrative structures and narrative plots (on the right of the figure) and the value creation process (in the storyline), recognizable by all parties involved.



**Figure 2 – The change program at Dominant Company**

The illustration further highlights the usage and realization of both tangible and intangible assets and their relationship with planned actions, thus enabling the traceability between strategic objective, action and asset usage and realization (e.g. New Abilities and Improved Abilities were necessary to enable Varied Game Play).

Strategic objectives for 2010 (on top of the red lines in figure 2) are to maintain the sales level of last year of 4.3 million Euros and to improve the gross sales margin by

2%, despite the global economic downturn. This is to be achieved through developing the team (New Abilities and Improved Abilities) which will lead to Varied Game Play possibilities (these terms are video game vocabulary which is easily understood by entrepreneurs, with little academic management training, as well as by other executives). The ultimate objective is to bring in Capital but in order to do so first other assets need to be focused on such as a measure of Goodwill which will need to be built up through Customer Relationships developed through Technical Know-how and Market Insights.

The leveraging of ICT and of a computer data base is crucial for Dominant Company to gain sales volume though customer loyalty will still depend heavily on human contact.

In Annex I we show a picture that illustrates the mapping between the visual and text representation of BNML as well as two BNML patterns used in Figure 2, extracted from the modelling language primitive glossary.

### **On the subject of change**

According to the Oxford Dictionary change means to “make or become different”. According to Kotter (1990, p.5) constructive change is a function of leadership and will have occurred when people have been moved “to a place in which both they [leaders] and those who depend upon them are genuinely better off”. Thus leadership will involve: establishing direction, aligning people, and motivating and inspiring (Kotter, 1990, p.5). We believe that our BNML will facilitate each of these three sub-processes as our language shows “a truth that influences their feelings” (Kotter and Cohen, 2002, p.1), evident in the storylines and the narrative patterns of BNML, which is so much more important than being given an “analysis that shifts their thinking” (Kotter and Cohen, 2002, p.1) (which we defend is the case, for example, of Allee’s tables which can be improved upon to better align and motivate and inspire). Furthermore, “the amount of significant, often traumatic, change in organizations has grown tremendously over the past two decades” and will indeed increase over the next few decades (Kotter, 1996, p.3) which is why we believe that our BNML may make a difference to organizations seeking, indeed relying on, being able to change successfully.

“Managing organizational change is problematic largely because human beings are programmed to resist or at least be cautious about change” (Tidd *et al.*, 2005, p.397).

Training and communication tools can be used to deal with this resistance (Tidd *et al.*, 2005) as we have done with BNML at Action Company, for example.

We, with our work using BNML at Action Company, have changed a mindset to make it more strategic, thus improving sales volume (especially to Potential Customers but also to Actual Customers as we have contributed fundamentally to the creation of an Action Company community made up of loyal customers who are aware of the value created and delivered by Action Company) and financial results (diminishing, for example, bad debts, due to a focus on the collecting of money but also due to added caution concerning payment terms). The Owner is now much more involved in Sales rather than just Production and along the way we have very much followed “the eight steps for successful large-scale change” (Kotter and Cohen, 2002, p.7) which has involved, among others, increasing urgency (making more evident the fact that accounts-due over 120 days old will probably not be collected), getting the vision for change right (through our three A-B-C phases of change), communicating for buy-in (using illustrative storylines), empowering action (using patterns of social interaction we have made evident, for example, the need to train the logistics team, in charge of deliveries, and thus an additional “face” / contact point of the company with customers, as they are in fact a sales team which has to act in tune with the Owner, now in charge of Sales himself) and creating short-term wins (our key performance indicators evident in our BNML representation).

Much as the Balanced Scorecard method (Kaplan and Norton, 1992, 1993) is used to deal with the difficulty of implementing strategic plans (Cravens and Piercy, 2009), so can BNML be used to similarly indicate the way ahead in change initiatives.

### **Conclusion - Our Business Narrative Modelling Language (BNML) in sum**

This paper is developed in the realm of strategic change communication. The purpose of this paper is to present our Business Narrative Modelling Language (BNML) as a tool for facilitating change.

We have applied BNML to various organizational settings (of which we have performed case studies) and we believe that our BNML will work well for all types of companies which are engaged in social interaction – thus including both global multinationals and small start-up enterprises. Our area of research is business and management and thus we

have not applied BNML to other areas of interest yet, though we may do so in the future.

In the management of strategic change most important of all is to be able to change the mindset of entrepreneurs and other key leaders. In the case of Action Company, in particular, this involved moving from desperation to the possession of a positive vision for the future. BNML helped provide this vision in a down-to-earth way, comprehensible by all, as BNML provides a focused, intuitive graphical representation which can be used and understood by front-line sales operatives, by back-office administrative personnel and also by senior managers.

With BNML a timeline is included in the modelling language – events will unfold over time and progress can be tracked. Organizational characters gain life with BNML and their paths can be followed as they are further embedded in the storylines. Relative product market share knowledge is not necessary and any firm can use BNML, irrespective of it being a leader or not in its segment.

We build on previous research done by authors such as Verna Allee (on assets and intangibles), Bjork and Holopainen (on game patterns), Kaplan and Norton (on key performance indicators), Brown (on the narrative) and other work on storylines (such as can be used to depict actors – or characters – in films and their social interactions during the development of the story and plot). The Enterprise Ontology of Uschold *et al.* (1998) is also a basis for the narrative descriptions in BNML.

The potentially negative attitude towards the narrative and storytelling and pictorial representations needs to be overcome and it is necessary to devise new methods to inspire change.

It is our conviction that the importance of communication, and how it aids change initiatives, should be duly appreciated. We hope to show in our future research efforts that BNML can help to achieve change objectives, by communicating the change vision and by leading to change occurring [first and foremost] in the mind.

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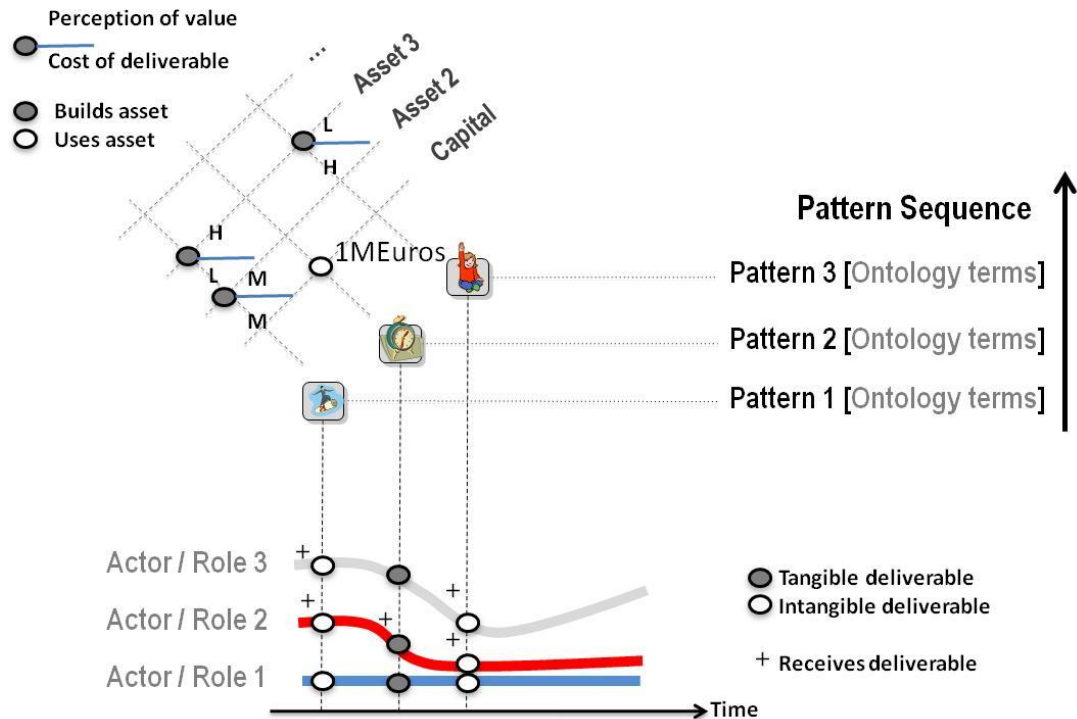
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## ANNEX I – Business Narrative Modelling Language, Pattern Glossary

The picture illustrates the mapping between the visual and text representation of BNML.



### Narrative Pattern

Name: \_\_\_\_

Story:

Who: \_\_\_\_ [\_\_\_\_ [(+)]]

What: \_\_\_\_ [deliverable]

[Uses: \_\_\_\_ [asset (cost)]]

[Builds:] \_\_\_\_ [asset (perceived value)]

Where: \_\_\_\_

Plot

Triggered by: \_\_\_\_

Name: \_\_\_\_

How: \_\_\_\_ [OntologyTerms<sup>(\*)</sup>]

When: \_\_\_\_ [date, Tag]

(\*) Uschold *et al.* (1998)

## Examples of Narrative Patterns

### Name: Trading

#### Story:

**Who:** Owner, Org. Unit (ICT / DB), Org. Unit (Sales), Actual Customer (+), Potential Customer (+)

**What:** Sales Quote [Tangible]

**[Uses:]** Technical Know-how

**[Builds:]** Customer Relationship, Goodwill

**Where:** Market

#### Plot:

**Triggered by:** Mission, Market Need

**Name:** [Main Plot]

**How:** New Abilities have been developed to enable Varied Game Play including Team Play and Constructive Play; leading to a Sale following Trading [Strategic Purpose and Critical Success Factor understood, a Brand name built up; the Promotion of Features leading to a Potential Sale after Trading is possible]

**When:** Time Point

### Name: Team Development

#### Story:

**Who:** Owner, Sales (+), ICT / DB (+)

**What:** Event [Training]

**[Uses:]** Technical Know-how

**[Builds:]** Technical Know-how, Customer Data Base

**Where:** Corporation

#### Plot:

**Triggered by:** Strategic purpose, Market Need

**Name:** [Secondary Plot]

**How:** New Abilities are developed, other Abilities Improved upon [Owner Helps Achieve, Delegates, provides a Management Link]

**When:** Time Point